FRIENDS' INTELLIGENCER.

"TAKE FAST HOLD OF INSTRUCTION; LET HER NOT GO; KEEP HER; FOR SHE IS THY LIFE."

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REPORT OF THE SECOND EDUCATIONAL CONFERENCE, HELD UNDER THE AUSPICES OF THE EDUCATIONAL COMMITTEE OF PHILADELPHIA YEARLY MEETING, FIRST MONTH 14TH, 1882, AT RACE STREET MEETING HOUSE.

The audience assembled near 10 o'clock. The chairman, Clement M. Biddle, announced the first question to be considered as follows: "Do Friends, in their Schools, Attach Sufficient Importance to the Awakening and Strengthening of the Moral Faculties in the Children? and How Far Should Teachers Exercise Care over the Conduct and Conversation of the Pupils out of School?" It was opened by the following essay prepared and read by Harriet E. Kirk:

A Friends' family, as it might be, may be considered the highest type of human institutions. Some one has said that, "If all our homes were what they should be, there would be little to be done abroad." A congregation of rectified homes would evangelize the world. Portray a man's home life, his habits, his intimate friends, and the picture of his morale is readily drawn. An atmosphere pervades the true home which exists *par excellence* in few other conditions. Here abide faith, hope, Divine love. These sublimate character and affect mediately or immediately the members of the household. If such influence were exerted over our children they would carry the evidence of careful home-training into the school-room, they would be examples one to another and aids to the teacher in fulfilling the duties of the profession.

Whether this home discipline exists to the extent that it should, let our individual consciences answer, for here lies the chief responsibility. The "awakening of the moral qualities" should begin with the first dawning of the embryo intellect of the young child, and be strengthened through the constant watchfulness of its natural guardians. A little bias from the right direction may cause darkness and sorrow to cover the infantile mind, which years of growing conviction may scarcely overcome.

Then have we reason to watch carefully the impress made upon the mind of the little child. Teach it by example and by loving, direct and indirect precept, the importance of keeping close to the leading principles—truthfulness, probity and exact justice—and obedience to parental control is secured.

If a child is taught to value and practise the attributes of Deity, he will recognize His power and authority and learn adoration for the Great Supreme and reverence for His creatures. Thus will his natural protectors do their part in aiding him to "seek first the kingdom of Heaven and its righteousness;" and this may be done in very early life, be-

fore the child can repeat or fully understand the Scripture injunction.

Under this concern for our children, when the time comes to entrust them to the educational care of others, we will select such teachers as are baptized into the concern, and who so feel the responsibility of the solemn trust confided to them that they will strive after right qualification for the holy calling. I have known teachers, and I will name one—our beloved friend Lydia Gillingham, late Principal of the Friends' Central School for Girls, Philadelphia—who told me that it was her custom, before entering her school-room, to spend a few moments in silent waiting, during which the prayer arose that she might receive ability rightly to perform the duties of the day; and many of us know how greatly her efforts were blessed.

Such teachers have their reward, though their labors may not be always appreciated by those who know not of their secret desires to be directed for the best good of the children. They may make mistakes; but if, in their efforts, they "attach sufficient importance to awakening and strengthening the moral qualities in children," their labors cannot be a failure.

Valuable and necessary as literary and scientific culture are admitted to be, we should ever remember that unless knowledge is the handmaid of enlightened wisdom it may be an auxiliary to evil rather than to good, and thus it becomes the paramount duty of the teacher to strive to strengthen those qualities that improve the heart and increase the vigor of the moral faculties.

Whether this branch of instruction has sufficient prominence in our schools my knowledge of the moral influence pervading them is too meagre to warrant me in venturing a decision, but it is a question of vital importance and one that addresses itself with emphasis not only to teachers but to school committees. By what means this "consummation devoutly to be wished" can best be secured is not now under consideration.

A faithful teacher cannot be indifferent to "the conduct and conversation of the pupils out of school." When offences are reported wise judgment must be exercised, but under no circumstances should immoral conduct or conversation pass unreproved, or the pupil may infer such deviation as of little importance and perhaps sanctioned by the teacher.

I am told that, a few years ago, the then State Superintendent of Pennsylvania decided that the teacher was accountable for the conduct of the pupils from the time they left the paternal roof to attend school until their return. This was placing a great responsibility upon the teacher. In our Friends' schools, parents and school committees should share the burden.

The reading of the essay was followed by remarks from Nathaniel Richardson, who said:

"If we accept the definition that morality is an obligation to a superior power, we should endeavor to awaken in the children a sense of their accountability to parents, to teacher and to the Creator.

"The greatest teacher of men was an example of obedience to parents, and He taught the necessity of attending to the minor duties of life by saying, 'If I told you earthly things and ye believe not, how shall ye believe if I tell you heavenly things?'

"Always keeping in view the higher motive, viz., accountability to the Creator, we must descend to a lower plane to meet the wants of the child by enjoining obedience in the home circle to the parents, and then in the school-room to the teacher, whose will should be recognized as the supreme law.

"We expect the teacher to detect any breach of the moral law and to administer reproof and instruction at the proper moment.

"This watchful care of the teacher, together with the influence of a good example and the occasional or regular reading of choice selections from the Scriptures, are potent influences in creating a healthy moral atmosphere which is one of the most attractive features of the school-room.

"Where such influences exist and other things are equal—that is, where the methods of instruction, the furniture and books are equal in every respect to the surrounding schools—this moral influence will secure the patronage of many of our best citizens, who prefer to pay the additional expense rather than educate their children free of charge where the moral influence may not be so good.

"Passing from the school-room, is it asking too much of the teacher to follow her flock to the play-ground and see that fair play is guaranteed to all; teaching the pupils to respect the rights and privileges and property of others?

"Vulgar and profane language should be prohibited.

"Any amusement known to be evil in its tendency and anything approaching to military drill should be discouraged."

Elizabeth Lloyd said the subject of morals in school is one in which she had long felt a deep interest. Good morals and good manners go together. Teachers should be polite to their scholars and require from them courtesy toward one another. One way of refining the manners and conversation of

children is by familiarizing them with good books.

If books other than text-books were sometimes read in the school as an exercise, the good influence arising would be felt in many ways.

Teachers should mingle frequently with the pupils on the play-ground; when there is not time for this, they should learn, by keen observation and by incidental talks, what is done on the play-ground, and arouse among the pupils a sentiment against swearing and improper conversation. This will be more effectual than the strictest rules.

Habits of neatness should be cultivated. Scholars should be taught to respect the school-room.

Punctuality is a very important virtue; not merely the punctuality that brings the pupil to school in time, but that leads to the doing of all work just when it ought to be done. Let the rule be always "Work first, play afterward."

The habit of doing work well is also very important. Half the work that is done in the world is wasted because it is only half done. The teacher who makes a practice of skimming over long lessons, that are of necessity but half prepared, is wronging his pupils morally as well as mentally.

School work should not be allowed to interfere with home duties. When mothers complain that their half-grown children are of no assistance to them, because it takes all their time out of school to prepare next day's lessons, there is something wrong. Children have bodies as well as minds, and the work which all children ought to be taught to do at home is a very important part of their education.

Regular attendance at school is very desirable, and all legitimate means should be used to secure it, but when the stimulus is such that a girl will leave a sick mother uncared for at home rather than miss a day at school (and this is an incident that really occurred), the teacher is doing his pupils a moral wrong.

A true sense of honor and a feeling of responsibility to God must be encouraged as essential to the proper development of character.

Annie Shoemaker said a teacher should be commended for using all right means to secure good attendance at school. Habits of punctuality and promptness are of the utmost importance. In the case cited, she thought the home training was at fault. If it were not, a child would not wish to neglect a sick mother to attend school.

An essay was then read by J. Walton Pancoast, bearing upon the great need of cultivating strict moral integrity, as the only safeguard against the prevailing dishonesty and immorality of the age. The essay is not at hand.

Henry R. Russell — Friends have labored and continue to labor, with some degree of zeal, to secure for their children a guarded education; and, though they may not be behind others in this respect, it is to be feared that they do not in their schools attach sufficient importance to the awakening and strengthening of the moral faculties, and, as a consequence, that they do not give enough attention to conduct and the formation of character. The harmonious development of the young, physically, mentally and morally, should be kept constantly in view, whatever the course of study; and, even in the earlier stages of life, no one of these important faculties should be overlooked. As good morals form the true basis of all our social and religious duties, to trust their development to chance, or to defer their systematic cultivation to a later period in life, is a grave error in our school work.

The necessities of our lives tend somewhat to the training of the young, physically and intellectually; but the fierce competition of trade blunts rather than sharpens the moral sense, and it is therefore the more important that special efforts should be made for the cultivation of the heart. Not that the pupil should be put to studying formal lessons in moral philosophy, for we have too many text-books and set lessons now; nor that he should be required to sit and listen to long lectures on duty, for there is too much of that already; but every teacher should feel that to "train up a child in the way he should go," so that "when he is old he will not depart from it," systematic efforts must be made, and made continually; and if he feels the importance of his work, and realizes the weight of his responsibility, he will seek to know how he can best impress upon the tender minds of those under his care that *conduct* is the most important part of life. If he can gain the confidence of his pupils, and win their affections, his work is already half accomplished, and the influence he may have over them can scarcely be estimated. He may find constant opportunities for impressing their minds with valuable truths, and by the timely caution, the loving word of admonition, and the interest shown in whatever will promote their advancement in moral as well as in intellectual and material prosperity, cannot fail to produce good results. He will seek to lead them by example, as well as to direct them by precept, and he will endeavor to make the discipline and instruction of the school-

room felt as constant moral forces. His brief morning readings will be selected with special reference to their fitness for the occasion, and his remarks be chosen to impress some important truth, or to illustrate some vital principle. History and biography will be made to yield their instructive lessons, and current events will be used to enforce the importance of correct guiding principles in the every-day affairs of men. Indeed, he may find material in all the exercises of the school-room, to use directly or indirectly, to develop those faculties, that tend more than any others to make mankind better and happier. He will not, of course, fail to impress upon their minds the importance of cultivating a habit of prompt and cheerful obedience, and of respectful and courteous conduct towards all with whom they mingle, for they should remember that true politeness is but the manifestation of kindness, which seeks to make itself felt even in the expression of the countenance and the tones of the voice; and he will strive to have them learn the *duty* of self-denial as well as the *pleasure* of well-doing. He will endeavor not only to keep them near him, *but near themselves*, so that each can examine his own conduct. *Doing the best we know* as a guiding principle cannot be overestimated, and the teacher may rely largely upon it as a controlling influence. Appeals to the child's own consciousness of right and wrong should be made, to keep him truthful, honest and pure. This is a fundamental principle with us as a Society, and in this connection it is well to consider the importance of explaining in our schools the principles and testimonies of Friends.

If the teacher is animated by the proper spirit, he will be constantly concerned about the conduct and conversation of his pupils, out of school as well as in, but he will trust that his influence may, in some degree at least, accompany them at all times, and that their own sense of right may always lead them in the better way.

John M. Child said—This question brings to our consideration a subject of vital importance in school work. The school is, in a certain sense, a family, and the teacher should feel an interest in all that concerns each member of it. In order that a teacher may exercise a restraining influence, he must cultivate a degree of intimacy with his pupils, so that they shall feel free to tell him whatever is of great interest to them. In the intercourse so established the teacher will gain an insight into the moral natures of his charges which will enable him to admonish them when they are deviating from the right.

In the case of boys it is especially important that a teacher should exert his influence to restrain them from the use of tobacco. If the teacher finds that his admonitions in this regard, or any other, are not effectual, it then becomes his duty to communicate with the parents, in order that their co-operation may be obtained in leading the pupil back to the right course. The joint admonitions of parents and teachers are frequently found to be more effectual than those of either alone.

Ed. H. Magill—In the past generation it was a common thing to teach books, and the duty of teachers was to hear lessons. Now the method is to teach subjects, and the error is that the subject is taught intellectually.

If the teacher is not himself an example to the scholars, it is impossible for him to teach morals. The duty to make moral teaching a part of school work is not confined to any grade of school, but it is essential all the way from the lowest or primary to the college and university. The teacher should be prepared to give a reason for every requirement.

M. E. Janney feared sometimes that the teacher does not feel the importance of her position or the influence she may exert over the impressible minds of the children entrusted to her care.

Elizabeth P. Comly said: The present condition of society brings this question home with stirring pertinacity, and when we consider that the purpose of education is not answered unless it develops a life intellectually, morally and spiritually, we must fear that we have exalted the one and neglected the other. Nor does this neglect lie alone with the teachers. Parents and school committees are also responsible. When a crowded curriculum of study leaves no time for comment on any subject save the one before them, we are forced to the conclusion that we do not sufficiently estimate the value of a firm basis of strict morality. Temperance, truthfulness, honesty are vital questions, and if impressively dwelt upon during the susceptible period of youth would help to mould a life for future usefulness. True, it may be said that *home* is the place for such teaching; but all children are not favorably situated, and the emphatic repetition of an idea gives it importance. Let us not, as Friends, be more anxious for the social elevation that intellectual culture brings to our children than for the strict and pure morality that blesses the world.

Samuel Swain was glad that this question had been introduced. Statesmen are beginning to see that moral training cannot be neglected with impunity. The true aim of the highest education is to make character, not that we should abridge the physical science,

but that the rules of right living should run like veins through all the instruction of the school-room.

Oliver Evans—We have teaching upon ethics and morality, and these are next to the teachings of Christianity. The effort should be made to get into the heart of the child all the good that is possible, so as to leave no room for that which is wrong or unprofitable.

Rachel Leys hoped there is no teacher who feels she has not sufficient time to teach morals.

Elizabeth S. Russell said she thought she knew something of the weight of the care and responsibility resting upon teachers, and while she would not willingly add anything to that burden unnecessarily, she thought there was no particular in which teachers fall so far short of their duty as in leaving the school-room during the hours of intermission, in not being there in the morning before the first pupil arrived, and in not staying to see the last one leave.

Nathaniel Richardson felt gratification that nearly all who had spoken felt the necessity for the teacher to impress upon the children the thought that the All-seeing Eye is ever upon them. We must impress upon them, further, the possibility of arriving at a state where the desire to do right because it is right will be the ruling motive of action.

Harriet E. Kirk—The first thing to teach the child is obedience. We have lost much in not insisting upon this. There are times when obedience must be required without giving a reason for it. Let the little child have implicit faith in the parents, and it will yield without questioning. It is right and proper to reason with children, but it is a duty sometimes to make the will of the parent the law of the child.

Deborah F. Wharton expressed great interest and satisfaction in what had been said on the important question under consideration.

Grace Anna Lewis had a word in reference to the contrast between material and spiritual interest. Both arise from God and cannot be separated. Nor should the physical sciences be regarded as unnecessary studies, since a knowledge of any one of these is but an acquaintance with the operations of the Divine Mind expressed in matter. Matter could not exist unless called into being by a vivifying Power. Spirit and matter must proceed alike from God, and the proper study of the latter leads to the fullest and highest appreciation of the former and to a sense of dependence upon Him whose Spirit vitalizes, embraces and sustains all, and "without whom nothing is."

A recess of ten minutes was then taken.

(To be continued.)

For Friends' Intelligencer.

WHAT BENEFIT IS THERE IN BELONGING TO A RELIGIOUS SOCIETY?

This is a question which, no doubt, is often asked mentally by those who, because they cannot know what they might have been but for the aid derived from membership in a religious society, hold it in light esteem. It may be asked, too, by some who, having looked for more help in the religious life than any outward circumstance can furnish, are disappointed and discouraged.

The legitimate purpose of religious organizations is indeed to promote the highest good of its members; but to do this the original purpose must be constantly kept in view. But instead of this constant recurrence to first principles how apt are all these organizations to slide into an undue reverence for the forms, the beliefs, the rules of conduct which, adopted perhaps in the decline of spiritual life with the vain hope of rekindling it, have had a contrary effect. Yet, notwithstanding this tendency of all human institutions to deteriorate, there are many advantages in belonging to a religious society, and these advantages will be realized in proportion as we are not looking to receive, but to give. That kindly interest, sympathy and help we give to others will be poured into our own bosoms if we give "hoping for nothing again."

But the greatest advantage resulting from membership in a religious society such as that of Friends', where the legitimate purpose is measurably kept in view, is the one of which perhaps we are least conscious—its insensible influence upon our characters. It resembles in degree the blessing of having been born of good parentage, or of living in a century that inherits the wisdom of the past. These favorable outward circumstances have contributed to shape our characters, and have added to our responsibility; and so has the fact of our sitting down two or three times in the week to meditate upon God, to examine our own hearts and to be reminded of our responsibility to Him. As we look on the countenances of those assembled on these occasions with the same object, we are reminded more forcibly than at any other time of the love and sympathy we owe them as children of the same Father. What if we see defects in our religious society—what if some of the ministry we hear reaches not the heart, but rouses the spirit of criticism, are we not sometimes refreshed by a true gospel message, and when this is not dispensed to us

can we not watch with the spirit of patience and resignation one hour?

The lesson will bear to be repeated, that they who *give* love, sympathy and help will not fail to receive.

"For we must share if we would keep
That blessing from above;
Ceasing to give, we cease to have,
Such is the law of love."

Philadelphia, First mo., 1882. S.

ANN DENNY.

The following was gleaned from the Smyrna (Del.) *Times*, First month 11th, 1882.

Near Smyrna, Del., on Fifth-day, First month 5th, 1882, Ann Denny departed this life, having entered her 105th year. She was born at Leipsic, Kent co., Del., on First month 1st, 1778, in the days when our forefathers were so nobly struggling for that blessed liberty which we now enjoy. Thus, she was older than the government under which we live, and her childhood was spent in the days when our public men were noted for that purity of life for which she herself was so distinguished.

We may mention as a pleasing incident of her childhood that she saw George Washington as he passed through Wilmington to his first inauguration as President of the United States, and when the great man came opposite to her, attracted probably by that sweetness of expression which was always hers, he stooped, took her in his arms and kissed her.

She was the daughter of Emanuel Stout and Mary Griffin his wife, and the sister of the late Judge Stout. The family attended the Presbyterian church, and she was baptized therein in her infancy. In early womanhood she became a member of the Society of Friends, and continued her connection therewith the remainder of her life.

On the 10th of Tenth month, 1797, she married William Denny, a prominent farmer and highly respected citizen of this vicinity. He died Second month 17th, 1816, leaving his widow, only 38 years old, with seven children to rear and educate. William Denny left his widow a moderate fortune, which time proved could not have been left in wiser hands, for she so managed it as to be able to educate her children at our best institutions of learning, and to gratify their every reasonable desire.

For nearly twenty years, or since the death of her daughter Sarah, which occurred at Philadelphia in 1864, she has been a member of the family of her son-in-law, George W. Cummins, Woodlawn, near Smyrna, Del.; she was the household's most precious and highly-cherished treasure. Here, in the midst of loved and loving ones, she was the center of attraction and the light of the household.

Ann Denny was a most remarkable woman in every sense of the word—remarkable for her physical constitution, which enabled her to attain such great age with strength but little diminished; more remarkable for the vigor of her mind, which she retained unimpaired to the last moment of her life, her memory being clear as to events of each successive year that had rolled over her; and most remarkable of all for her sweetness of disposition and lovely Christian character. None of the family, children, grandchildren or servants ever received from her a harsh word or an unkind look, and her love for the Master was as pure and trustful as that of a little child for its mother. She said to her daughter a short time since, "I am trying to wait patiently for the summons, only afraid I may become impatient." The impatience never came, and when the summons did, we feel sure she was ready.

The following extract from a letter, written by an old friend to the family since her death referring to his last visit, shows the estimation in which she was held by those who knew her best. "It seemed to me then—and it is a deepened sense now—as if she had so long been at the Heavenly portal that she was breathing even then the atmosphere of the New Jerusalem—as if she had at least caught some glimpse of the King in His beauty, and that though her feet were on the earth yet her conversation was in Heaven. 'Tell my friends,' she said, 'that I have a beautiful home here, but that I desire so to live that I may be ready and willing to leave it whenever the message may be sent me.' For several years her most intimate friends have gathered on her birthday at Woodlawn to pay their respects and to bring renewed assurances of their love for her. When bidding farewell one of these expressed the hope that they might meet again on her next anniversary. She replied, "I neither hope for nor expect it." Little did the company of friends who gathered around her on that day suspect that they should so soon be called to gather around her bier.

But, thanks be to God, we "sorrow not as those without hope." We feel that she has been taken from those who loved her so well to the arms of Him who loves her still better.

CORRESPONDENCE.

Esteemed Editors:

A member of our Indian Committee has furnished me with an account of a recent visit to Washington, which may be of interest to the readers of *Friends' Intelligencer*.

On the 12th inst. a few of the Indian Committee of Baltimore Yearly Meeting went by invitation to attend the annual meeting of the Board of Indian Commissioners in Washington. It so happened that there was a delegation of Presbyterians in Washington that day on Indian business, and soon after the Board meeting convened an invitation came to join them in a visit to the two Committees of Congress on Indian Affairs.

The invitation was accepted, and a very interesting and encouraging meeting was had with the two committees in joint session. The object sought by the delegation of Presbyterians was the passage of a law which will give to the Indians titles to their lands, and also to appropriate money to support schools, separate from the agencies, for Indian children. They had a lengthy memorial to Congress, and made some eloquent verbal appeals to the committee, which were fully and earnestly endorsed by all who were present, each and every religious society represented being called upon to give a voice in the matter.

Whilst in the committee-room a message came from the President inviting all who were there to visit him at the White House; and nearly all went. Secretary Kirkwood and Commissioner Price were with the President, and the visitors were cordially received by them all. Nearly the same proceedings took place here as in the committee-room. The President thanked the visitors for calling upon him, and said that he would do all in his power to forward civilization among the Indians. The chairmen of the committees also entered very fully into the subject, and said that they would use their utmost endeavors to have the right kind of bills presented to and passed by Congress.

The Board meeting then re-assembled and transacted the usual routine business of hearing reports from the various societies who have charge of Indians, etc. General Armstrong, of Hampton School, and Captain Pratt, of Carlisle, were present, and gave very favorable reports of their respective schools. Friends were much encouraged by what they saw and heard that day, and they feel a hope that by continued vigilance and labor the time is not far distant when the Indian question will be settled in a way that will be far more creditable to the nation than much of its treatment of them in the past has been.

Baltimore, First mo. 22d, 1882. E. B.

LOCAL INFORMATION.

The Friends living in the vicinity of Fair Hill, Philadelphia, have (as is generally known) been holding meetings for Divine worship in their own dwellings since the early part of last year.

These parlor gatherings have been increasing in size from month to month, and are felt to be a great convenience to Friends of that locality who, by reason of the long distance from their several meetings, have not heretofore been able to attend regularly. The meeting is held at 3 o'clock on First-day afternoons.

Though those who compose the meeting are members of the three Philadelphia Monthly Meetings, the majority of them belong to Green Street Monthly Meeting.

Recently these Friends applied to Green Street Monthly Meeting to be taken under its oversight as an Indulged Meeting. At the last session of the Monthly Meeting the request was granted and a joint committee set apart to nominate suitable Friends to meet with them and have care over the meeting.

The interest is a growing one, and it will doubtless be found necessary to provide a suitable room to accommodate the meeting in the near future.

Girard Avenue Meeting and School.—The committee having charge of the subject of "the better accommodation of the meeting and school at Seventeenth street and Girard avenue," have agreed upon a plan which was laid before the two Monthly Meetings, Philadelphia (Race Street and Green Street), and united with by both Meetings.

The proposition, as it now stands, is to erect a brick building on the northwest corner of the lot, fronting on Walter street and joining the meeting-house. The gallery window and west door will open into the schoolroom. The total cost is estimated at $10,000, to be borne equally by both Meetings. Accommodations for from 175 to 200 scholars will be provided without making use, as at present, of the meeting-house.

Good schools, under the care of competent and conscientious teachers, will always find ready patronage, and nowhere in our city is there greater need for such a school than at Seventeenth street and Girard avenue.

SCRAPS

FROM UNPUBLISHED LETTERS.

I have read a copy of the Extracts of our late Yearly Meeting (Baltimore) carefully through, and how it revives the precious feeling of love and unity which so prevailed with us during the entire Yearly Meeting. And how noticeable are the forward steps taken in the First-day School cause, in Temperance and other humanitarian work. I felt when in the Yearly Meeting—and the same remains with me—that as we are con-

cerned and enabled by the Unerring Guide to hold up the precious doctrines and testimonies left to us by our fathers—who stood as watchmen to warn us of right-hand and left-hand errors—we cannot stand still; for, should we stop, ere we are aware of it, we are going backward.

There is no resting in the labors of yesterday or of the past, but onward and upward is ever the call each day to the willing laborer, for truly there never was a time in the history of the race when this was not required of the faithful.

When we cast our eyes backward over the past we may behold much to encourage us in what has been done to better the condition of man and to improve his comfort and happiness. But when we turn our eyes forward to what lies before and around us, we find there still remains a great work to be done. In every community we find the poor inebriate, a slave to perverted appetite. How every feeling of human sympathy goes out for his reformation and restoration to society. And the more we learn of his history the more we become awakened to the importance of what is before us. I feel glad that the Yearly Meeting took the step it did in appointing a committee on Temperance, and that our true friend Wm. M. Way so feelingly urges it to action in a late number of *Friends' Intelligencer*. We have been doing what we could here for the cause by uniting with all true temperance workers, and we feel encouraged that an advance has been made. Our meetings are held regularly every two weeks We had William M. Way with us at one of them, when he was here in Eleventh month, and his labors were highly appreciated.

FRIENDS' INTELLIGENCER.

PHILADELPHIA, FIRST MO. 28, 1882.

A FRIEND who wishes to send magazines, papers, etc., for the use of the teachers of the freedmen in the South, in response to an appeal in the *Southern Workman*, asks to be informed of its address. That paper is edited and managed by the officers of the Hampton Institute, and printed on the School press by colored youth trained in the office. Information as to where parcels should be sent can be obtained by addressing J. T. B. Marshall, Business Manager of *Southern Workman*, Hampton, Va.

JESSE H. GRIFFEN, Correspondent for Amawalk Monthly Meeting, informs that owing to a change of mail route, his address, which was formerly "Hallock's Mills P. O.," is now "Underhill P. O., Westchester co., N. Y."

CHEERFUL VIEWS OF DEATH.—The inroads of death upon the ranks of life contin ually tend to solemnize our pilgrimage in time. The departure of kindred and friends reminds survivors that this mortal life is only a transitory state, which should be a time of faithful preparation for a life of greater perfectness, for which the soul of man continually longs and aspires. This longing and aspiration is accepted as one evidence of the immortality of the soul and of its high destiny; and to be fully persuaded of the coming of higher and nobler conditions of being, after the passing away of this bodily life, sweetens and enriches existence immeasurably.

The Christian faith, as it was presented to man by Jesus of Nazareth, is held to teach the most comforting and rational doctrine of man's destinies. His assurances of an eternal life of blessedness as a sequel to a mortal life of dedication to the Divine will have been treasured in the hearts of His disciples in all the ages, and have stimulated the peoples of Christendom to a joyful upward progression that has scarcely ever known a suspension. But the pious ancients of another and a less Divine faith had also high hopes and even confident assurances of the dignity and immortal character of the human soul. Said the Greek poet (Euripides):

"That which has grown from the earth to the earth,
But that which sprung from Heavenly seed
Back to the Heavenly realms returns."

Said Marcus Aurelius: "Every moment think steadily to do what thou hast in hand with perfect and simple dignity and feeling of affection and freedom and justice, and give thyself relief from all other thoughts. And thou wilt give thyself relief, if thou doest every act of thy life as if it were the last; laying aside all carelessness and passionate aversion from the commands of reason, and all hypocrisy and self-love and discontent with the portion which has been given to thee." Again, the wise Stoic tea-

ches that "to go away from among men, if there are gods, is not a thing to be afraid of, for the gods will not involve thee in evil; but if, indeed, they do not exist, or if they have no concern about human affairs, what is it to me to live in a universe devoid of gods or devoid of providence? . . Why should a man have any apprehension about the change and dissolution of all the elements? For it is according to nature, and nothing is evil which is according to nature." Such were the conclusions of the enlightened philosopher, but we find the assurances of the blessed Jesus and His apostles more consoling to the soul in view of the solemn change we call death. "When this corruptible shall have put on incorruption," says Paul, "and this mortal shall have put on immortality, then shall come to pass the saying that is written, Death is swallowed up in victory. O death, where is thy victory? O death, where is thy sting?"

Habiliments of mourning and homes darkened and rendered gloomy by the exclusion of the cheerful sunbeams are not in harmony with that serene and joyful hope and trust that is the right of the Christian disciple. And we would plead for the exclusion of these outward symbols, and of all artificial darkening of the earthly life on the part of those who have bidden solemn farewell to the parting spirit which is done with time. If we have faith in the Divine benignity and in the loving fatherhood of the Disposer of all things, surely we will not seek to clothe death with gloom and terror.

MARRIED.

KIRK—KING.—On First mo. 19th, 1882, with the approbation of Little Britain Monthly Meeting, at the residence of Thomas P. King, Samuel J. Kirk to Lauretta A. King, all of Fulton township, Lancaster co., Pa.

WILLSON—HULL.—On Twelfth mo. 15th, 1881, under the care of Third Haven Monthly Meeting, at the residence of Wm. P. Chaffinch, Easton, Md., John M. Willson to Mary Elma Hull, both of Talbot county, Md.

DIED.

BALLINGER.—Of typhoid fever, on First mo. 17th, 1882, Edward G., only son of Charles and the late Maria Ballinger, in the 21st year of his age; a member of Woodlawn Particular and Alexandria Monthly Meeting.

BROWN.—On Fourth-day, Twelfth mo. 21st, 1881, at the residence of her son, Peru, N. Y., Mary W. Brown, in the 73d year of her age.

MARSHALL.—On Twelfth mo. 19th, 1881, Sallie, only daughter of Caleb and Jane Marshall, in her 24th year; a member of Philadelphia Monthly Meeting.

She was an affectionate and dutiful daughter, and earnest and faithful in the discharge of her duties. She was connected with Girard avenue First-day school, both as pupil and teacher, and felt a deep interest in her class up to the close of her young life. Realizing that her end was near, she was favored with a heavenly peace and joy, and spoke to each member of her family words of counsel and Christian love. She said she could now see there was too little charity in the world, and hoped we would all be more charitable toward others' faults; be more fervent in prayer, and have a more personal love for Christ. S.

UNDERHILL.—On the evening of First mo. 12th, 1882, Caroline, wife of Daniel Underhill, of Jericho, L. I., in the 56th year of her age.

For Friends' Intelligencer.

NATURAL HISTORY STUDIES.

Cellar Mollusks.—Some time in the early fall of last year we discovered that a colony of these tiny creatures were domiciled in a dark corner of our cellar. They are small and pretty, and as some of our younger readers may feel interested in searching for them I have abbreviated a description, which I found in a back number of the *American Naturalist*, for their benefit. The little creatures that we placed in a vessel seem very well contented, and feed readily on lettuce. They make a pretty living ornament for the sitting-room, and please the old folks as well as the children.

"The cellar mollusks all belong to the great division of mollusks which are called *Pulmonata*, from the fact of their breathing with lung-like vessels. Furthermore, they all belong to that group of *Pulmonata* which are called *Geophila*, or lovers of dry land, from the fact of their habits being terrestrial in distinction from those which are adapted to living in fresh water or in the sea. These *Geophila* are distinguished in addition to their breathing with lung-like vessels by their having their eyes at the end of long, slender, cylindrical feelers.

"Our cellar mollusks are all nocturnal in their habits. They lie quietly stowed away in some crack or crevice of the walls during the day; at night they sally forth in pursuit of food and to enjoy the company of their kind. They feed on vegetable matter, refuse from the kitchen, decaying vegetables or fruits, or on Indian meal, flour or anything they are lucky enough to find; they even devour animal food, and in confinement have

even been accused of cannibalism. When one comes to know how well adapted their mouth is to eating, it becomes a wonder that our mollusks leave anything uneaten, for the mouth of each individual mollusk is armed at its entrance with a sharp, stout, pointed process, called a jaw for want of a better term. This falls, portcullis-like, on the food of the animal, and cuts off pieces into his mouth. Once in the mouth the food is taken hold of by a long, broad, ribbon-like membrane, generally called a tongue. The whole surface of this tongue is covered with sharp, tooth-like processes running in transverse rows. These small, sharp teeth rasp quickly the food, and carry it forward towards the stomach. Short work they must make of it, for the number of these tooth-like processes is very great, counting as high as 80,000 in some species.

"Our cellar mollusks are active all the year round, owing to the milder and more equal climate of their abode. They do not hibernate like their brethren of the fields and woods. Their soft, shell-less body gives them little protection from their enemies. Like all animals so defenceless, they would soon become exterminated had they not great powers of reproduction. They lay eggs several times during the year, and in such numbers that a couple of them will lay as many as 600 in a year. These eggs are gelatinous, semi-transparent and globular, sometimes attached, together like a rosary. They are remarkably tenacious of vitality, so much so that they resist the greatest extremes of temperature. They have even been shrunk and dried in a furnace, and kept for years in this state, yet still have developed their young upon being restored to moisture. The young animal emerges from the egg in about a month, and when two months old begins to reproduce its kind, though not itself arrived at more than half its greatest size.

"Only one species of our cellar mollusks is furnished with an external well-developed shell; the others are what are commonly known as *slugs*. They have, however, under the skin of the forepart of their body, called the mantle, a rudimentary shell, either in grains of calcareous matter or in a regular calcareous plate. This plate was formerly supposed to have great medicinal properties, and has been said to be a sovereign remedy for almost all the ills that flesh is heir to.

"The whole surface of their body is constantly lubricated by a watery fluid. They also have the power of secreting a milk-like mucus at any part of their body which may require protection from any foreign substance. This secretion of mucus is their only means of defence against their enemies. It also is used as a thread like the spider's web to enable them to descend to the earth.

"All the species mentioned below are of foreign origin; they were imported from England. They are found only in close proximity to man around his habitation, either in cellars or gardens. Most of them were noticed more than half a century ago, as early as mollusks became to be studied in our country. They have also been imported into other colonies of England, and probably are destined to become the most cosmopolitan of mollusks.

"Of the various species found in our cellars, the only one which bears a well-developed external shell is the *Hyalina cellaria*, a thin, horn-colored, glistening, flattened shell of five whorls, and less than half an inch in diameter. The edge of the aperture is sharp, not reflected, or thickened by a border of testaceous matter. It is a common European shell of which a single specimens was first noticed by a gentleman in Philadelphia on a wharf near the foreign shipping. It was shown to Mr. Say, who described it as a new species. Of late years it has not been seen in that city, but from Astoria, Long Island, to Halifax, it exists in almost every Atlantic port. It is found only in cellars and gardens. It used to be very common under the bricks of the inner edge of the sidewalk on the north side of Mount Vernon street, Boston, between Walnut street and Louisberg Square.

"*Limax maximus* is the largest of our cellar slugs. It seems to be a more recent importation than the other species, having first been noticed in Philadelphia in 1867. It appeared almost simultaneously at Brooklyn, N. Y., and at Newport, R. I. Some individuals placed in a garden in Burlington, N. J., were shortly after found in an adjoining cellar. This species is readily distinguished by the rich brown or black stripes running lengthwise down its back, giving it a leopard-like appearance. It is about four inches long.

"*Limax flavus* grows about three inches long. It is characterized by a brownish color, with oblongoval uncolored spots; body cylindrical, elongated, terminating in a short prominent keel; mantle oval, rounded at both ends, with rounded spots; base of foot sallow white. It has been noticed for more than forty years in the cities of our Atlantic coast, and probably has followed the white man over the whole country.

"*Arion fuscus* belongs to a different genus from the last named slugs. It is readily distinguished by its jaw which has no median beak-like projection to its cutting edge, but has rib-like processes on its anterior face, crenulating the margin. Its tongue differs also in the form of the teeth. In the forepart of

its body, under the rounded shield-like process of the skin, there are calcareous grains instead of a well formed plate. And finally at its tail is a decided triangular perpendicular mucus pore. It grows about one inch long. The color is whitish, grayish or brownish; upper surface marked with elongated crowded glands; mantle oval, granulated; tail obtuse, not carinated; the sides marked with an obscure brownish line. It is of European origin and thus far has only been noticed in Boston and vicinity. It is not properly a cellar snail, but is found with the preceding species around kitchens and gardens."

L. J. R.

THE BEAUTIES OF THE HEAVENS.

The Providence *Journal* in a recent issue says: At 9 o'clock on the 23d of January the constellation Orion is on the meridian. It is the most magnificent collection of stars that lends its golden light to adorn the firmament, and when it reaches this proud eminence the heavens present the most brilliant array of stars and clusters upon which human eyes ever gaze. Its position in the sky is as distinguished as the beauty of its clustering stars, for the centre of the constellation is midway between the poles of the heavens and directly over the equator, so that it is seen all over the world. Orion contains about 80 stars visible to the naked eye, though the telescope reveals more than 2,000. It rejoices in the possession of two stars of the first magnitude, and four stars of the second magnitude. The group may be easily recognized by four brilliant stars that form an elongated parallelogram, with a band of three bright stars in the centre, and a row of stars running obliquely downwards. This is the appearance of the constellation to the ordinary observer, only this and nothing more. But the poetic imagination of the Greeks, taking these stars for a framework, surrounded and interwove them with the giant stature and noble proportions of the hunter, Orion, brandishing a club in his right hand and holding in his left hand a lion's skin for a shield. Thus he is represented on celestial maps. Bellatrix and Betelguese, the two upper stars of the parallelogram, shine brightly on his broad shoulders; Rigel and Saiph, the two lower ones, glow on his left foot and right knee. The three stars in the centre form his belt, and the stars running downwards his sword. Eight small stars west of Bellatrix point out the lion's skin, and a triangle of three small stars forms the head. It takes but little stretch of fancy to sketch the majestic hero around the glittering stars of this majestic group, and it adds greatly to its impressiveness on the mental eye to surround it with the poetic creations that have come down to us from the past. The three stars forming the belt of Orion have been objects of special interest from the time when men began to study the heavens. They are sometimes called the Three Stars, for no others in the heavens exactly resemble them in position and brightness. They are also known as the Three Kings, because they point out the Pleiades and Hyades on one side and Sirius on the other. In the Book of Job they are called the Bands of Orion. The belt and sword taken together are also called the Ell and Yard. The latter name is given to the three stars because an imaginary line uniting them measures three degrees in length, and is divided by the central star into two equal parts, like an old-fashioned yard-stick. Orion's belt thus forms a graduated standard for measuring the distances of the stars from each other. A little careful practice with this celestial measuring-rod will enable the observer to give at a glance a nearly accurate judgment of the relative distances of the stars.

With Orion firmly established as the centre of the field of observation, it will be comparatively easy to trace the most important stars and clusters that share with their leader the glory of the star-lit heavens. Turning to the southeast, a star will be seen of wonderful brightness. It is Sirius, the largest and most brilliant of all the fixed stars, and it twinkles and glows in the winter sky with a superb radiance that one never tires of beholding. It is the leading star of the constellation Canis Major, and is also the famous Dog Star of the ancients; it was regarded by them with superstitious fear, its risings and settings being watched with anxious solicitude as ill-boding or auspicious omens for agricultural interests. Modern astronomers see in Sirius only the brightest of the twenty million stars that spangle the sky, a huge sun of the highest type or class, "a gem of purest ray serene," adorning the canopy of night, while observers who have access to fine telescopes delight to follow the movements of a companion star as it revolves around a primary, whose discovery was a triumph of modern astronomy. About 26 degrees east of Betelguese in the shoulder of Orion, and nearly the same distance northeast of Sirius, a yellow star pierces the celestial depths. It is Procyon, the leading brilliant of Canis Minor. In spite of its serene aspect, it is found to manifest strange perturbations in its movements. Twenty-three degrees north of Procyon two bright stars four and a half degrees apart meet the eye of the observer. They are Castor and Pollux, the twin stars in the constellation Gemini. The upper and brighter of the two is Castor, of the first

magnitude. It is one of the finest double stars in the northern heavens. A telescope of moderate power will separate it into two stars, one of them a brilliant white, and the other white tinged with green, a diamond and pale emerald. It will impress these stars upon the mind's eye, in uneffaceable colors, to note that Sirius, Procyon and Betelguese form an equilateral triangle, and Pollux, Procyon and Betelguese form a right-angled triangle.

Sirius, Procyon, Castor and Pollux may thus be readily recognized by their bearings from Orion. If we now turn our attention westward from the grand constellation on the meridian, two clusters in Taurus will be prominent objects of interest. One of them is the beautiful group of the Pleiades, with six stars visible to the ordinary observer, though exceptional visual power will pick up ten or eleven, and the telescope reveals hundreds. The other cluster is the Hyades, northeast of the Pleiades, containing five stars, so situated as to form the letter V. The bright red star on the left, at the top of the letter, is Aldebaran. The bright star low down in the northwest is Vega, the leading star in Lyra, beautiful to behold as it approaches the horizon. Not far away is the noble Cross in the Swan, standing upright and resting in the Milky Way.

Looking northwest, above the Twins, and near the zenith, we shall see the first magnitude star Capella, a superb white star, in the constellation Auriga, where three of the comets of 1881 were first discovered. Twenty-four degrees west of Capella, and about the same distance north of the Pleiades, is a wonderful variable star, in Perseus, called Algol, or the Demon. It is usually a star of the second magnitude, but at intervals of a little less than three days it fades out to the fourth magnitude for a few hours, and then gradually returns to its brightest aspect. North of Algol and resting on the Milky Way, lies the constellation Cassiopea, its principal stars taking the form of the letter W. There is a special interest attached to this constellation at present. for a brilliant, variable star, known as the Star of Bethlehem and the Pilgrim, may appear at any moment within its domains. In 1572 a star suddenly blazed forth near Caph, the principal star of the group, which surpassed Venus in brightness, and was visible at noonday. It gradually faded away to a star of the twelfth magnitude, its present condition. Diligent search was made among astronomical records, and it was found that bright stars had been seen at intervals of about three hundred years in the same place. It was inferred, therefore, that the star was a variable, with a period of three hundred years, and that, counting back, it probably appeared at the time of the birth of Christ, and was perhaps the Star in the East. For this reason it is sometimes called the Star of Bethlehem. If there is truth in the theory, the star is due, and may be expected at any time, to add to the celestial marvels of the nineteenth century. We have given but a bare outline of a row of the prominent stars and constellation that may now be easily traced in the heavens. They are such, however, as observers can trace for themselves on the glowing map that on every clear, moonless night lies open for use above their heads. Those who thoroughly learn the names and relative positions of the stars here pointed out will have made commendable progress in their acquaintance with the worlds of space. The heavens present the same picture of the glory of the stars as that we have attempted to describe whenever the same season of the year returns. But the scene is never monotonous. Though the fixed stars apparently retain the same position in regard to each other, constant changes in the movable elements give variety to the serene aspect of the suns of space. Comets at any moment may enliven the scene with their fantastic presence; meteors may suddenly flash into being and as suddenly dissolve in trailing garments of celestial light; the aurora may flame forth in northern skies, in weird forms and glowing hues; and the long expected variable may blaze forth at any time into dazzling brilliancy, and then fade away into invisibility. Three bright planets now enliven the nightly view, Jupiter and Saturn westward bound towards the clime of the sun, and Mars rolling majestically towards the meridian in the early evening hours. We have drawn the picture for nine o'clock. Observers at an earlier hour will find the stars less advanced in their stately march over the celestial track. Observers at a later hour will find the grand procession farther towards the west, while new stars will have taken their places in the eastern sky. Every night the starry picture changes. The stars seem to rise and set because the earth turns on her axis. They seem to rise four minutes earlier every night, because the earth advances in her orbit round the sun.

DAILY WORK.

In the name of God advancing,
Sow thy seed at morning light;
Cheerily the furrows turning,
Labor on with all thy might.
Look not to the far-off future,
Do the work which nearest lies;
Sow thou must before thou reapest,
Rest at last is labor's prize.

From The Popular Science Monthly.

EARTH-WORMS AND THEIR WONDERFUL WORKS.*

BY W. H. LARRABEE.

The subject of Mr. Darwin's latest volume is the share which worms have taken in the formation of the layer of vegetable mold that covers the surface of the land in every moderately humid country. It is a real surprise to learn, from the observations which Mr. Darwin has so patiently made for nearly half a century, and which he records in this work, how important a part these unconsidered creatures have played in giving to the surface of the land its generally fine consistency and fertile properties, and how essentially and vastly they have contributed to the comfort and prosperity of mankind. Ever since his first paper on vegetable mold was read before the Geological Society of London, in 1837, Mr. Darwin has kept on with his investigations, in flower-pots in his room, in his garden, and in the field, and has detected the work of the worms wherever anything will grow—in meadows and table-lands, in cultivated places and in woods, on mountains fifteen hundred feet high in Scotland, nearly twice as high at Turin, seven thousand feet above the sea on the Nilgiri Hills of Southern India, and on the slopes of the Himalayas—effecting the transformation of the hard, cold earth, and the raw leaves into fine, fruitful soil. It is easy to say, as some have done, that the creatures are too insignificant to accomplish so extensive a work; but the facts adduced by Mr. Darwin convey a striking lesson in the principle that nothing is so minute that it can be despised. . . . .

Mr. Darwin discovered in worms evidences of a degree of intelligence. They line their burrows with leaves as a protection, it is supposed, against the cold of the clammy ground, and plug the entrances to them with leaves and leaf-stalks. It requires some manipulation to get these leaves in right, but the worms know how to perform it, and can discriminate between the easiest way to draw the leaf in and other ways. Commonly, seventy or eighty per cent. of the leaves are drawn in by the tips, that being the direction in which they go in most easily and fold most nicely. Some leaves, however, may be drawn in nearly as easily by the sides or the bases as by the tips, and a larger proportion of these are drawn in in those ways. The worm likes to gnaw the base of the petiole of the ash-leaf, and this leaf is drawn in by the base. Pine-leaves, which grow in pairs attached to a single base, must be drawn in by the base or not at all, and the worm rarely makes a mistake in the matter. Mr. Darwin suggests here, however, that we must not suppose the worm to know too much, and that some other quality than mechanical convenience may guide it to the selection of the base of the pine-leaf. Sometimes, when the worm begins to plug its hole, it drags leaf-stalks in by the base so as to fill it faster; but as soon as it comes to close quarters, it turns and drags the rest of the stalks in by the tips. Triangles of paper were given worms instead of leaves, and they likewise drew them in in the easiest way, apparently at the first trial. When worms can not obtain leaves, petioles, sticks, etc., with which to plug up the mouths of their burrows, they often protect them by little heaps of stones; and such heaps of smooth, rounded pebbles may frequently be seen in gravel-walks. A lady interested in this study removed the little heaps of stones from the mouths of several burrows, and cleared the surface of the ground for some inches all around. She went out on the following night with a lantern, and saw the worms, with their tails fixed in their burrows, dragging the stones inward by the aid of their mouths. After two nights some of the holes had eight or nine small stones over them; after four nights one burrow had about thirty and another thirty-four stones, and one of the stones weighed two ounces. The strength of worms is also shown by their often displacing stones in a well-trodden gravel-walk, a task that sometimes demands considerable effort.

Worms excavate their burrows in two ways: by pushing away the earth on all sides where the ground is loose or only moderately compact, and where they are able to disappear from sight with surprising agility; and by swallowing the dirt, where the ground is hard, and ejecting the swallowed earth afterward in the form of the "castings" which are found at the mouths of their burrows. Worms also swallow earth to extract the nutritious matter which may be contained in it, and in larger quantity than for making their burrows; and the residue of this, after the nutriment is extracted, is also cast out. The deposition of castings, then, is no insignificant part of the labor that they perform, and leaves very perceptible traces upon the surface. The castings may be seen by any one who will take the pains to look for them, and often in garden-walks without looking for them, piled up in the shape of towers of greater or less height around the burrows. The towers formed by a naturalized East Indian worm, at Nice, France, which are sometimes distributed as thickly as five or six to a

*The Formation of Vegetable Mold through the Action of Worms, with Observations on their Habits. By Charles Darwin, LL.D., F.R.S. With Illustrations. Published by D. Appleton & Co., New York.

square foot, are built to a height of from two and a half to three inches. The tower of a *perichæta* in the Botanic Garden at Calcutta measured three and a half inches high and 1·35 inch in diameter. One tower from Calcutta was five inches high and two and a half inches in diameter; and the average weight of twenty-two castings sent Mr. Darwin from Calcutta was an ounce and a quarter. The largest castings mentioned came from the Nilgiri Hills in South India, seven thousand feet above the sea, and afforded one specimen that weighed a quarter of a pound, the largest convolutions of which were about an inch in diameter. The manner of forming the casting is described by Mr. Darwin: "A worm after swallowing earth, whether for making its burrow or for food, soon comes to the surface to empty its body. The ejected earth is thoroughly mingled with the intestinal secretions, and is thus rendered viscid. After being dried it sets hard. I have watched worms during the act of ejection, and when the earth was in a very liquid state it was ejected in little spurts, and when not so liquid by a slow, peristaltic movement. It is not cast indifferently on any side, but with some care, first on one and then on another side, the tail being used almost like a trowel. As soon as a little heap is formed the worm apparently avoids, for the sake of safety, protruding its tail, and the earthy matter is forced up through the previously deposited soft mass." Some of the towers exhibit a considerable degree of skill in their construction. The castings are not always ejected on the surface of the ground, but are often lodged in any cavity that may be met in burrowing. The burrows run down, sometimes perpendicularly, generally a little obliquely, to a depth of three, six, and even eight feet, and are usually lined with a thin layer or plaster of fine, dark-colored earth which the animals have voided, in addition to which a lining is made, near the mouths, of leaves, also plastered. Bits of stones and seeds are also sometimes found in the bottom of the burrows, having been taken down apparently with a purpose.

The amount of earth brought up by worms from beneath the surface has been carefully estimated by observing the rate at which stones and other scattered objects on top of the ground are buried. Beneath a sod an inch and a half thick was a layer of vegetable mold, free from fragments of every kind, two and a half inches thick. Under this was another layer of mold, an inch and a half thick, full of fragments of burned marl, conspicuous from their red color, fragments of coal-cinders, and a few white-quartz pebbles. Beneath this layer, and at a depth of four and a half inches from the surface, the original black, peaty, sandy soil with a few quartz pebbles was encountered. "Here, therefore," says Mr. Darwin, "the fragments of burned marl and cinders had been covered in the course of fifteen years by a layer of vegetable mold, only two and a half inches in thickness, excluding the turf." Six and a half years afterward this field was re-examined, and the fragments were found at from four to five inches beneath the surface, having been covered in that time with an inch and a half more of mold.

Another field, lying upon the chalk, and sloping rather steeply in one part, which was turned into pasture-land in 1841, was for several years so thickly covered with small and large flints that Mr. Darwin's sons always called it "the stony field." When they ran down the slope the stones clattered together; and Mr. Darwin remembers doubting whether he should live to see the larger flints covered with vegetable mold and turf. But the smaller stones disappeared before many years had elapsed, as did every one of the larger ones after a time; so that after thirty years, or in 1871, a horse could gallop over the compact turf from one end of the field to the other, and not strike a single stone with his shoes. "This," says Mr. Darwin, "was certainly the work of the worms, for, though castings were not frequent for several years, yet some were thrown up month after month, and these gradually increased in numbers as the pasture improved." The accumulation of mold, was however, of the slowest, measuring only ·083 of an inch a year. A flagged path in Mr. Darwin's garden disappeared in the course of years, it might be said under his very eyes, the worms covering it with an inch of mold.

A stone, sixty-four inches long, seventeen inches broad, and from nine to ten inches thick, part of the ruins of a lime-kiln that had been torn down thirty-five years before, lay in a field, its base sunk from one to two inches below the general level, while the surface of the field for about nine inches around it sloped up toward it to the height of four inches above the surrounding ground close to the stone. The stone could not have sunk by its weight, and there was evidence that one of its pointed ends, the upper surface of which was now on a level with the surrounding turf, must have stood clear of the ground for several inches.

When the stone was removed, an exact cast of its lower side, forming a shallow crateriform hollow, was left, the inner surface of which, except where the base had been in contact with brick rubbish, consisted of fine black mold. The turf-covered border, which sloped up to the stone, consisted of fine vegetable mold, in one part seven inches thick,

and was evidently derived from worm-castings, several of which had been recently ejected. This stone would have sunk to the level of the field in two hundred and forty-seven years if none of the castings were washed away by rains. . . . . .

"Archæologists," says Mr. Darwin, "are probably not aware how much they owe to worms for the preservation of many ancient objects. Coins, gold ornaments, stone implements, etc., if dropped on the surface of the ground, will infallibly be buried by the castings of worms in a few years, and will thus be safely preserved until the land at some future time is turned up." The remains of ancient buildings seem also to have been buried effectively, in large part, through the action of worms. An example of this kind is furnished at Abinger, Surrey, where the remains of an ancient Roman villa were discovered in 1877. . . . . .

Worms also contribute to the disintegration of the rocks and the denudation of the land by generating humus acids which act on the carbonates, by grinding up in their crops the stones they swallow, and by bringing earth to the surface in their castings, to be blown away by the winds and washed away by the rains into the valleys. They are extraordinarily numerous. Henson says there are 53,767 of them in an acre of garden-soil, and Mr. Darwin is willing to allow half that number, or 26,886, to the acre in corn-fields and pasture-lands; and as in many parts of England a weight of more than ten tons of dry earth annually passes through their bodies and is brought to the surface on each acre, the whole superficial bed of vegetable mold must pass through them every few years. By triturating this earth, by subjecting its minerals to the action of the humus acids, and by periodically exposing the mold to the air, they prepare the ground in an excellent manner for the growth of fibrous-rooted plants and for seedlings. The bones of dead animals, the harder parts of insects, the shells of land-mollusks, leaves, twigs, etc., are before long all buried beneath the accumulated castings of worms, and are thus brought in a more or less decayed state within reach of the roots of plants. Leaves are digested by them and converted into humus. Their burrows, penetrating to a depth of five or six feet, are believed to aid materially in the drainage and ventilation of the ground. They also facilitate the downward passage of roots of moderate size, which are nourished by the humus with which the burrows are lined. Many seeds owe their germination to having been covered by castings; others, buried more deeply lie dormant till they are brought under conditions favorable to germination. "The plow," says Mr. Darwin, in conclusion, "is one of the most ancient and most valuable of man's inventions; but long before he existed the land was in fact regularly plowed, and still continues to be thus plowed, by earth-worms. It may be doubted whether there are many other animals which have played so important a part in the history of the world as have these lowly-organized creatures." The coral animal is their most conspicuous rival in this claim.

NEVER give way to melancholy. Nothing encroaches more. I fight against it vigorously. One great remedy is to take short views of life. Are you happy now? Are you likely to remain so till this evening, or next week, or next month, or next year? Then why destroy present happiness by a distant misery which may never come at all, or you may never live to see it? For every substantial grief has twenty shadows, and most of them shadows of your own making.—*Sydney Smith.*

For Friends' Intelligencer.

"NO DOUBT BUT YE ARE THE PEOPLE, AND WISDOM SHALL DIE WITH YOU."—Job xii, 2.

When we are dead the world will move on
  Just as steadily as before;
The suns will rise, and the moons go down,
  And the wind blow in at the open door—
Bringing the fragrance of summer flowers,
  Bringing the snow-wreaths, soft and white,
And happy lovers will count the hours,
  And wives will wake through the weary night.

When we are laid away to rest,
  Under the grasses and under the leaves,
Shall the work of our hands be all unblest?
  Will the time of the harvest yield no sheaves?
Lord, Thou knowest; but give to me
  Lowly to sit at the Master's feet,
Ever in meekness to follow Thee
  By the waters of Siloam pure and sweet.

CHARLOTTE PANCOAST.

Woodstown, N. J., First mo. 13th, 1882.

WOODS IN WINTER.

BY H. W. LONGFELLOW.

When winter winds are piercing chill,
  And through the hawthorne blows the gale,
With solemn feet I tread the hill
  That overbrows the lonely vale.

O'er the bare upland, and away
  Through the long reach of desert woods,
The embracing sunbeams chastely play,
  And gladden those deep solitudes.

Where, twisted round the barren oak,
  The summer vine in beauty clung,
And summer winds the silence broke,
  The crystal icicle is hung.

Where, from their frozen urns, mute songs
Pour out the river's gradual tide,
Shrilly the skater's iron rings,
And voices fill the woodland side.

Alas! how changed from the fair scene,
When birds sang out their mellow lay,
And winds were soft and woods were green,
And the song ceased not with the day.

But still wild music is abroad,
Pale, desert woods! within your crowd;
And gathering winds in hoarse accord
Amid the vocal reeds pipe loud.

Chill airs, and wintry winds! my ear
Has grown familiar with your song;
I hear it in the opening year—
I listen, and it cheers me long.

A MAN cannot tell what may happen to him, but he can say what he will be and do, God helping him, in the events and circumstances that have to do with his daily life. It is not what comes to one, so much as how it is met, that tells in the formation of character. We may or may not be responsible for the condition in which events find us, but we are accountable for the condition in which they leave us.

ITEMS.

THE total exports of domestic breadstuffs from the United States during 1881 were valued at $224,118,560, against $275,936,859 in the preceding year.

THE recent land-slips in Switzerland are ascribed to the frequent slight shocks of earthquake. No less than twenty-one shocks have been observed since December.

THE total number of immigrants who arrived in the United States during 1881 was 716,868. Of this number there came from Germany 248,323, England and Wales 77,750, Ireland 70,896, Scotland 16,441, Dominion of Canada 94,159, Austria 19,667, Norway 26,824, Sweden 55,805, China 20,628, all other countries 86,375.

THE Supreme Court of Illinois has decided that school boards had no right to compel the attendance of colored children at public schools separate from the white; all children between the ages of 6 and 12 years, regardless of race or color, having equal rights in the free schools of the State, which are public institutions.

A CONFERENCE of railway managers has fixed the time for opening the entire St. Gothard line at the first of Seventh month. Since its completion entire satisfaction is expressed with the temperature, ventilation and lighting and with the solidity of its construction. The obstacles which caused most anxiety, and at one time even threatened to remain insurmountable, give no sign in the completed work that they ever existed.

THE Alexandria correspondent of the London *Times* telegraphs as follows: "The Egyptian situation is becoming very grave. Parliament refuses to surrender its right of voting the Budget. The programme of Parliament clashes with that of the Khedive and Cherif Pasha, the Prime Minister. If Parliament persists in its attitude Cherif Pasha will resign. The Anglo-French note has not overawed the National party. The policy of England and France is anxiously awaited. Precipitate action might produce actual danger."

THE "JEANNETTE'S" CREW.—The Secretary of the Navy has just received the following telegram from Engineer Melville, of the lost Arctic exploring steamer *Jeannette:*

IRKUTSK, Jan. 18, 1882.—To the Secretary of the Navy Department, Washington, D.C., United States of America.—Sir: Melville, Danenhower and eleven men, all well. Melville returned to Arctic Ocean, found log books, instruments and four records left by De Long. No tidings of second cutter, Lieutenant Chipp. Search continued during the winter by Cossack Commandant of Belun and Yakutsk, under direction of General Tschernaieff. Word from Kalyma river that no boat had arrived to date, Nov. 19th. I am acquainted with the country where De Long and party are, and request orders to remain with two men to renew the search in March. Danenhower and nine men to return to the United States. Danenhower's sight partially recovered.

MELVILLE.

SALT IN DIPHTHERIA.—In a paper read at the Medical Society of Victoria, Australia, Dr. Day stated that, having for many years regarded diphtheria, in its early stage, as a purely local affection, characterized by a marked tendency to take on putrefactive decomposition, he has trusted most to the free and constant application of antiseptics, and, when their employment has been adopted from the first, and been combined with judicious alimentation, he has seldom seen blood poisoning ensue. In consequence of the great power which salt possesses in preventing the putrefactive decomposition of meat and other organic matter, Dr. Day has often prescribed for diphtheria patients living far away from medical aid the frequent use of a gargle composed of a tablespoonful or more of salt dissolved in a tumbler of water, giving children who cannot gargle a teaspoonful or two to drink occasionally. Adults to use the gargle as a prophylactic or preventive, three or four times a day.—*Scientific American.*

NOTICES.

Circular Meeting will be held Second mo. 5th, at 11 A.M., at Kakiat Meeting-house, Rockland co., N. Y., one mile and a half from Mount Ivy, on the New Jersey and New York Railroad.

The Western Quarterly Union of First-day Schools will have a meeting at Kennett Square on Seventh-day, the 28th inst., to convene at 10 o'clock. All persons interested are invited to attend. Cars from Philadelphia arrive at Kennett Square about 9 A.M.

E. T. SWAYNE, *Supt.*
L. B. WALTON, *Sec'y.*